REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

MICROPROCESSOR CIRCUITRY

TAPE ASIC CIRCUITRY

READ CIRCUITRY

WRITE/LIN CONNECTOR

READ CONNECTOR

AGC SELECT

COMPANY:	ALESIS CORP.
TITLE:	CDAT PROCESSOR BOARD
	MICRO, MEMORY, TAPE ASIC
	FPANEL, READ, WRITE

DRAWN: G. G.	DATED: 8/7/95	CODE:	SIZE: C
REV. C	DATED:	DRAWING NO:	REV:
QUALITY CONTROL:	DATED:	SCALE:	SHEET: 1 OF 4
RELEASED:	DATED:		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SMPVCO CIRCUITRY

DIGVCO CIRCUITRY

PROCESSOR +5V

AUDIO +5V

DIG IN/OUT

TO POWER SUPPLY

TO AUDIO BOARD

AUSY ASIC CIRCUITRY

AUSY ASIC

LINEAR HEAD CIRCUITRY

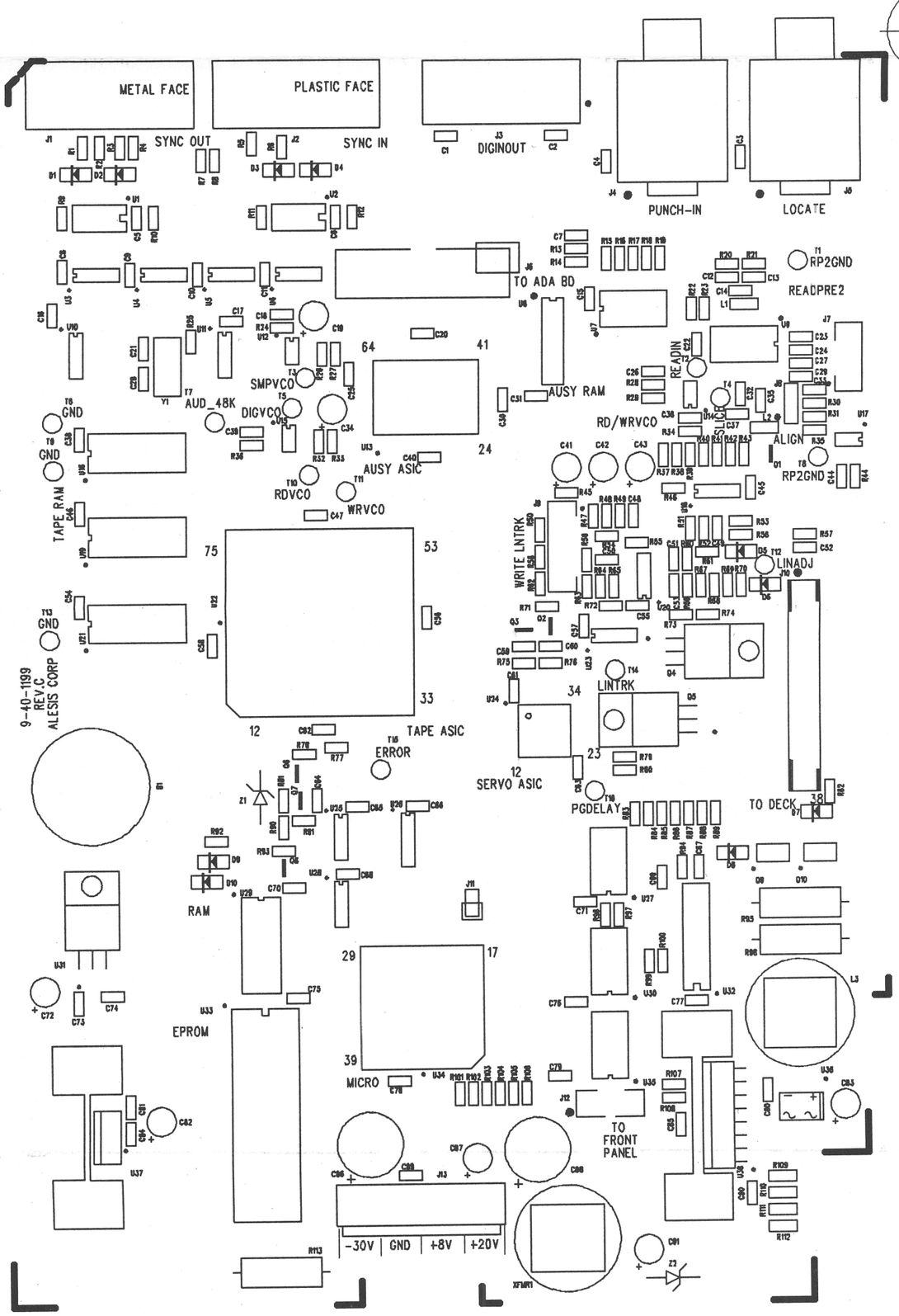
SERVO ASIC CIRCUITRY

SERVO ASIC

CAPSTAN CONTROL CIRCUITRY

DRUM CONTROL CIRCUITRY

DRAWN: G.G.	DATED: 7/12/95	COMPANY: ALESIS CORP.	
REV. B	DATED:	TITLE: CDAT PROCESSOR BOARD AUSY, SERVO, SMPVCO, DIGVCO ADA, POWER, DIG CONNECTORS	
QUALITY CONTROL:	DATED:	CODE:	SIZE: C / DRAWING NO: / REV:
RELEASED:	DATED:	SCALE:	SHEET: 2 OF 4


METAL FACE
PLASTIC FACE
SYNC OUT
SYNC IN
DIGINOUT
PUNCH-IN
LOCATE
TO ADA BD
RP2GND
READPRE2
SMPVCO
AUD_48K
DIGVCO
AUSY RAM
READIN
SLICE
RD/WRVCO
ALIGN
AUSY ASIC
RDVCO
WRVCO
TAPE RAM
WRITE LNTRK
LINADJ
LINTRK
TAPE ASIC
ERROR
SERVO ASIC
PGDELAY
TO DECK
RAM
EPROM
MICRO
TO FRONT PANEL
-30V
GND
+8V
+20V
9-40-1199 REV.C ALESIS CORP
A/W 09-40-1199 "TOPSILK" LAYER 1 - REV.C

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

VFD FILAMENT CIRCUITRY

REEL MOTOR CIRCUITRY

BRAKE CIRCUITRY

LD/THRD MOTOR CIRCUITRY

LM324 U17D, U17C
R39 3.9k, R38 1K, R37 1.65k 1%, R42 2.43k 1%, R41 1K, R43 2.05k 1%
COMP
Q1 MBT4403
R40 1K
SYNC_SEL_C, SYNC_SEL_B, SYNC_SEL_A
U7 74HC574
SYNC_SEL
DATA[00:07]
R15 16k, R16 8.2k, R17 3.9k, R18 2k, R19 1K, R14 3.9k, R13 1K
C15 0.1uF, C3 0.01uF, C4 0.01uF, C7 0.1uF
J5 LOCATE/LRC
J4 PUNCH-IN
U29 74HC541
RD, OE1, OE2
DECK1_SEL, COMP, USER_OUT1, USER_OUT2, TACH, END_SENSOR, START_SENSOR, ADA_SEL, PUNCH-IN
R98 270k, R99 100K, R96 220k, R95 220k
C75 0.1uF
U26 74HC541
DECK0_SEL, DEWSENSOR, ENDLOAD, STARTLOAD, TPTHRMODE, CAPONMODE, TPUNTHRMODE, RECEN, CASSPRES
R88 4.7k, R87 4.7k, R93 390k, R82 4.7k, R83 4.7k, R84 4.7k, R85 4.7k, R86 4.7k
C70 0.1uF, C68 0.01uF
R110 12K, R111 12K, R112 12K, R109 12K
XFMR1, FIL_B, FIL_A, XFMR C.T.
Z2 1N4738A,8.2V, -30V
R107 100 ohm, R108 100 ohm
C91 10uF,25V, C85 0.01uF
C90 0.1uF
U37 L298N
AUD_48K, RESET_EN, PWM3, DIR
C80 0.1uF
U35 EDF1DS
L3 480uH, C83 10uF,25V
REELMOTOR+, REELMOTOR-
PWM2, R78 470 ohm, Q9 PZT2222A
D8, D7
Q10 PZT2222A, R79 470 ohm, PWM1
RESET, LD/THRDMOT_SEL
U34 74HC273
DATA00, DATA01, DATA02, DATA03, DATA04, DATA05, DATA06, DATA07
USER_IN1, MUTE, DIR, RESET_EN
C79 0.1uF
U31 LM18293
R97 24 ohm THREADMOTOR+
R94 24 ohm LOADMOTOR+
C66 0.1uF, C76 0.1uF
+20VM, +5VM, MTRGND
J10 TO DECK
PGIN, GND, DRUMFGRAW, DRUMCV, DRUMFGGND, DRUMGND, RECGND, RECEN, TAKUPBRK, SUPPLYBRK, TPUNTHRMODE, MODEGND, CAPONMODE, TPTHRMODE, STARTLOAD, LOSENS+5V, LOADMOTOR-, ENDLOAD, START_SENSOR, END_SENSOR, LOADMOTOR+, TACHIN, TACHGND, REELMOTOR+, REELMOTOR-, DEWSENSOR, CAPFGIN, CAPFGGND, CAPCVGND, LEDGND, CAPCV
DRUM+20V, BRK+20V, TACH+20V, LED+5V
R81 75 ohm

DRAWN: G. G.	DATED: 7/12/95	COMPANY: ALESIS CORP.	
REV. B	DATED:	TITLE: CDAT PROCESSOR BOARD DECK CONNECTIONS, FOOTSWITCH, LRC VFD FRONT PANEL FILAMENT	
QUALITY CONTROL:	DATED:	CODE:	SIZE: C / DRAWING NO: / REV:
RELEASED:	DATED:	SCALE:	SHEET: 3 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

MICROPROCESSOR CIRCUITRY

TO FRONTPANEL

TAPE ASIC CIRCUITRY

WRITE/LIN CONNECTOR

READ CIRCUITRY

AGC SELECT

READ CONNECTOR

COMPANY:	ALESIS CORP.
TITLE:	CDAT PROCESSOR BOARD
	MICRO, MEMORY, TAPE ASIC
	FPANEL, READ, WRITE
DRAWN: G. G.	DATED: 7/12/95
REV. B	DATED:
QUALITY CONTROL:	DATED:
RELEASED:	DATED:
CODE:	SIZE: C
DRAWING NO:	REV:
SCALE:	SHEET: 1 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SMPVCO CIRCUITRY

DIGVCO CIRCUITRY

PROCESSOR +5V

AUDIO +5V

TO POWER SUPPLY

TO AUDIO BOARD

DIG IN/OUT

AUSY ASIC CIRCUITRY

AUSY1 ASIC

LINEAR HEAD CIRCUITRY

SERVO ASIC CIRCUITRY

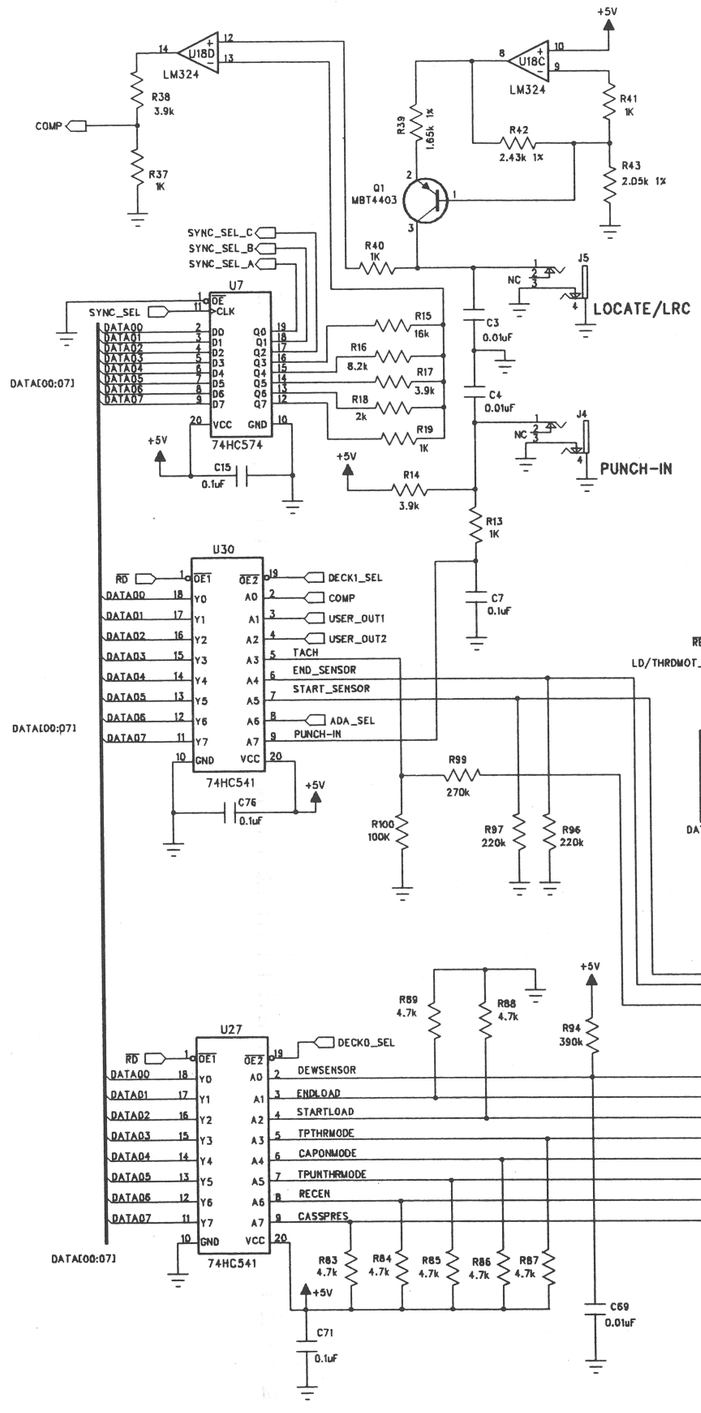
SERVO ASIC

CAPSTAN CONTROL CIRCUITRY

DRUM CONTROL CIRCUITRY

COMPANY:	ALESIS CORP.		
TITLE:	CDAT PROCESSOR BOARD AUSY, SERVO, SMPVCO, DIGVCO ADA, POWER, DIG CONNECTORS		
DRAWN: G.G.	DATED: 8/7/95	CODE:	SIZE: C
REV. C	DATED:	DRAWING NO:	REV:
QUALITY CONTROL:	DATED:	SCALE:	SHEET: 2 OF 4
RELEASED:	DATED:		

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



DRAWN: G. G.	DATED: 8/7/95	COMPANY: ALESIS CORP.	
REV. C	DATED:	TITLE: CDAT PROCESSOR BOARD DECK CONNECTIONS, FOOTSWITCH, LRC VFD FRONT PANEL FILAMENT	
QUALITY CONTROL:	DATED:	CODE:	SIZE: C / DRAWING NO: / REV:
RELEASED:	DATED:	SCALE:	SHEET: 3 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SYNC_SEL_A
TXD
INT_SYNC
EXT_SYNC
AUD_48K
EXT_48K
SYNC_SEL_B
RXD
SYNC_SEL_C

U10C 74HCU04
U10D 74HCU04
U10E 74HCU04
U10G 74HCU04
U3A 74HC00
U3B 74HC00
U3C 74HC00
U3D 74HC00
U3E 74HC00
U4A 74HC00
U4B 74HC00
U4C 74HC00
U4D 74HC00
U4E 74HC00
U5A 74HC00
U5B 74HC00
U5C 74HC00
U5D 74HC00
U5E 74HC00
U6A 74HC00
U6B 74HC00
U6C 74HC00
U6D 74HC00
U6E 74HC00
U27E 74HC00
U38B 74HC74
U38C 74HC74
U24F 74HC14
U24G 74HC14
U22G 74HC04
U17E LM324
U19E LM339

R1 220 ohm
R2 220 ohm
R3 220 ohm
R4 220 ohm
R5 220 ohm
R6 220 ohm
R7 220 ohm
R8 220 ohm
R9 470 ohm
R10 470 ohm
R11 470 ohm
R12 470 ohm

C5 0.1uF
C6 0.1uF
C8 0.1uF
C9 0.1uF
C10 0.1uF
C11 0.1uF
C44 0.1uF
C54 0.1uF
C56 0.1uF
C64 0.1uF
C67 0.1uF
C77 0.1uF

U1 HCPL2630
U2 HCPL2630
D1
D2
D3
D4

+5V
+20V
GND
NC

J1 DB9 SYNC OUT
J2 DB9 SYNC IN

DRAWN: G. G.	DATED: 7/12/95	COMPANY: ALESIS CORP.	
REV.B	DATED:	TITLE: CDAT PROCESSOR BOARD SYNC IN / SYNC OUT, CHIP PWR/GND	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV:
RELEASED:	DATED:	SCALE:	SHEET: 4 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SYNC_SEL_A
TXD
INT_SYNC
EXT_SYNC
AUD_48K
EXT_48K
SYNC_SEL_B
RXD
SYNC_SEL_C

U11C U3A U3D U3B U3C U4D U4A U4B U4C U5A U11D U5B U5D U5C U6A U6D U6C

U10B 74HC74 (S, CLK, D, R, Q, Q̄)
U11E
U6B
U25F 74HC14
U18E LM324
U20E LM339
U25G 74HC14
U11G
U23G
U10C 74HC74
U4E U3E U5E U6E U28E

+20V
+5V

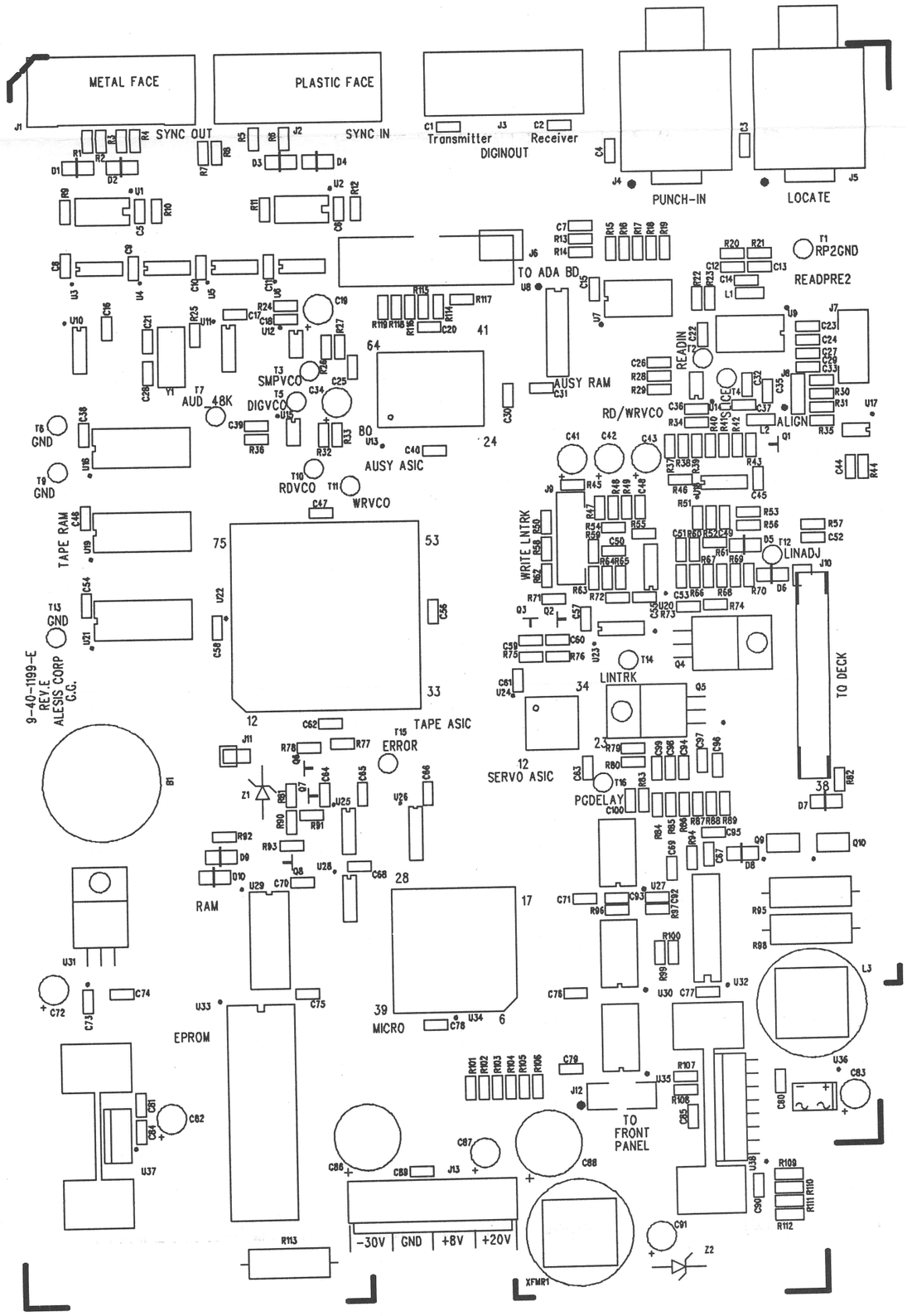
C45 0.1uF
C55 0.1uF
C65 0.1uF
C17 0.1uF
C57 0.1uF
C16 0.1uF
C9 0.1uF
C8 0.1uF
C10 0.1uF
C11 0.1uF
C68 0.1uF
C5 0.1uF
C6 0.1uF

R1 220 ohm
R2 220 ohm
R3 220 ohm
R4 220 ohm
R5 220 ohm
R6 220 ohm
R7 220 ohm
R8 220 ohm
R9 470 ohm
R10 470 ohm
R11 470 ohm
R12 470 ohm

U1 HCPL2630 (VCC, GND)
U2 HCPL2630 (VCC, GND)
D1
D2
D3
D4

J1 DB9 — SYNC OUT
J2 DB9 — SYNC IN
NC

DRAWN: G. G.	DATED: 8/7/95	COMPANY: ALESIS CORP.	
REV.C	DATED:	TITLE: CDAT PROCESSOR BOARD SYNC IN / SYNC OUT, CHIP PWR/GND	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV:
RELEASED:	DATED:	SCALE:	SHEET: 4 OF 4


METAL FACE
PLASTIC FACE
SYNC OUT
SYNC IN
Transmitter
Receiver
DIGINOUT
PUNCH-IN
LOCATE
TO ADA BD
RP2GND
READPRE2
AUSY RAM
READIN
RD/WRVCO
ALIGN
SMPVCO
DIGVCO
AUD 48K
AUSY ASIC
RDVCO
WRVCO
TAPE RAM
TAPE ASIC
WRITE LNTRK
LINADJ
LINTRK
TO DECK
ERROR
SERVO ASIC
PGDELAY
RAM
EPROM
MICRO
TO FRONT PANEL
-30V
GND
+8V
+20V
XFMR1
9-40-1199-E REV.E ALESIS CORP C.C.
A/W 09-40-1199 REV.E "TOPSILK" LAYER 1

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

MICROPROCESSOR CIRCUITRY

TO FRONTPANEL

TAPE ASIC CIRCUITRY

WRITE/LIN CONNECTOR

READ CIRCUITRY

READ CONNECTOR

AGC SELECT

COMPANY:	ALESIS CORP.
TITLE:	CDAT PROCESSOR BOARD MICRO, MEMORY, TAPE ASIC FPANEL, READ, WRITE
DRAWN: G. G. — DATED: 2/28/96	
REV. E — DATED:	
QUALITY CONTROL: — DATED:	
RELEASED: — DATED:	
CODE:	SIZE:
DRAWING NO:	REV: E
SCALE:	SHEET: 1 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SMPVCO CIRCUITRY

DIGVCO CIRCUITRY

PROCESSOR +5V

DIG IN/OUT

AUDIO +5V

TO POWER SUPPLY

TO AUDIO BOARD

AUSY ASIC CIRCUITRY

AUSY1 ASIC

LINEAR HEAD CIRCUITRY

SERVO ASIC CIRCUITRY

SERVO ASIC

CAPSTAN CONTROL CIRCUITRY

DRUM CONTROL CIRCUITRY

DRAWN: G.G.	DATED: 2/28/96	COMPANY: ALESIS CORP.	
REV. E	DATED:	TITLE: CDAT PROCESSOR BOARD AUSY, SERVO, SMPVCO, DIGVCO ADA, POWER, DIG CONNECTORS	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV: E
RELEASED:	DATED:	SCALE:	SHEET: 2 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

VFD FILAMENT CIRCUITRY

REEL MOTOR CIRCUITRY

BRAKE CIRCUITRY

LD/THRD MOTOR CIRCUITRY

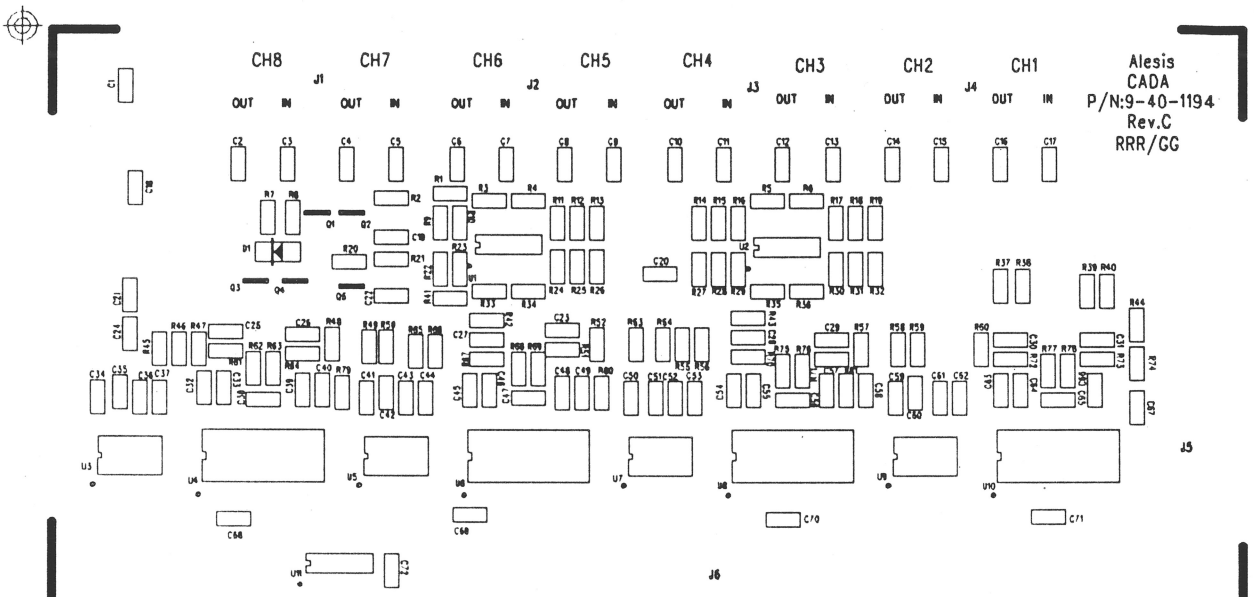
TO DECK

COMPANY:	ALESIS CORP.		
TITLE:	CDAT PROCESSOR BOARD DECK CONNECTIONS, FOOTSWITCH, LRC VFD FRONT PANEL FILAMENT		
DRAWN: G. G.	DATED: 2/28/96	CODE:	SIZE: DRAWING NO: REV: E
REV. E	DATED:		
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:	SCALE:	SHEET: 3 OF 4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

SYNC_SEL_A
TXD
INT_SYNC
EXT_SYNC
AUD_48K
EXT_48K
SYNC_SEL_B
RXD
SYNC_SEL_C
U3A U3B U3C U3D U4A U4B U4C U4D U5A U5B U5C U5D U6A U6B U6C U6D U11C U11D U11E U25F
74HC74 74HC14
XTP36 XTP43 XTP7 XTP19 XTP180 XTP61 XTP86 XTP8 XTP9 XTP24 XTP10 XTP23 XTP182 XTP11 XTP25 XTP20 XTP2 XTP5 XTP3 XTP12 XTP1
R4 220 ohm
R3 220 ohm
R2 220 ohm
R1 220 ohm
R7 220 ohm
R8 220 ohm
R10 470 ohm
R9 470 ohm
R12 470 ohm
R11 470 ohm
R6 220 ohm
R5 220 ohm
C5 0.1uF
C6 0.1uF
U1 U2 HCPL2631
VCC GND
D1 D2 D3 D4
SYNC OUT
SYNC IN
J1 DB9
J2 DB9
NC
+5V
+20V
U18E U20E LM324 LM339
C45 0.1uF
C55 0.1uF
U25G 74HC14
U11G U23G U10C 74HC74
C65 C17 C57 C16 0.1uF
U4E U3E U5E U6E U28E
C9 C8 C10 C11 C68 0.1uF

DRAWN: G. G.	DATED: 2/28/96	COMPANY: ALESIS CORP.	
REV.E	DATED:	TITLE: CDAT PROCESSOR BOARD SYNC IN / SYNC OUT, CHIP PWR/GND	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV: E
RELEASED:	DATED:	SCALE:	SHEET: 4 OF 4

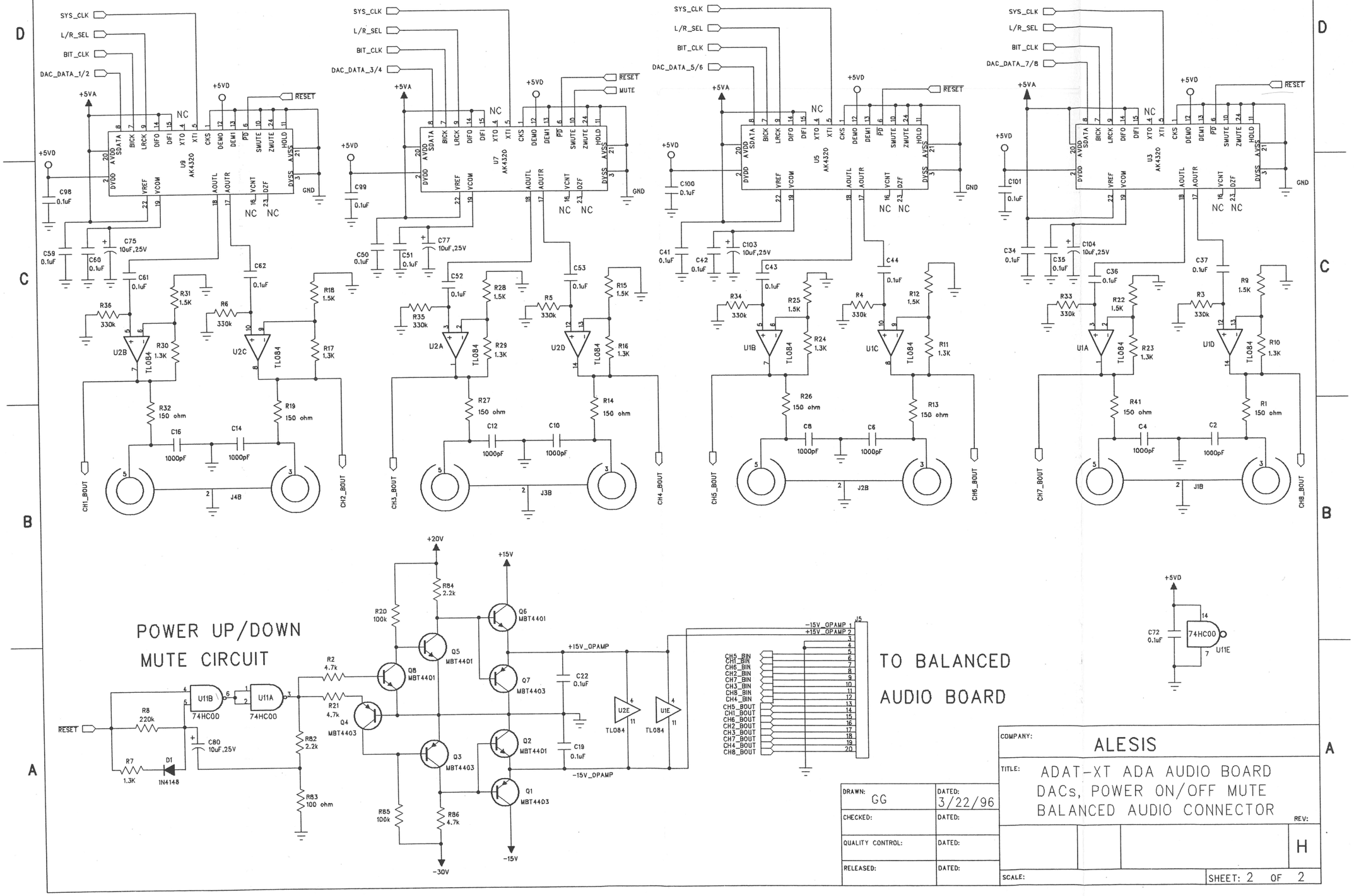


A/W 09-40-1194 "TOPSILK" LAYER1-REV.C

A\M 09-40-1194 "BOTSILK" LAYER4-REV.C

DAC(CH1-8)

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



DRAWN: GG	DATED: 3/22/96	
CHECKED:	DATED:	
QUALITY CONTROL:	DATED:	
RELEASED:	DATED:	

COMPANY: ALESIS

TITLE: ADAT-XT ADA AUDIO BOARD
DACs, POWER ON/OFF MUTE
BALANCED AUDIO CONNECTOR

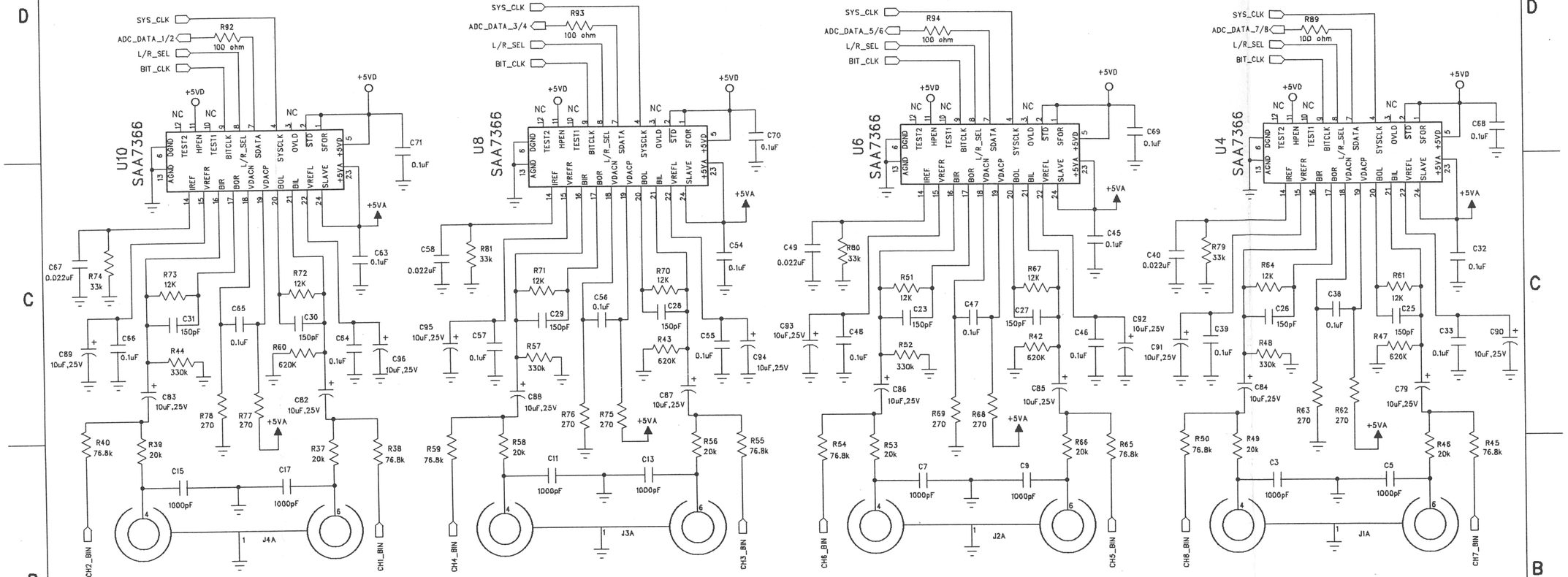
REV: H

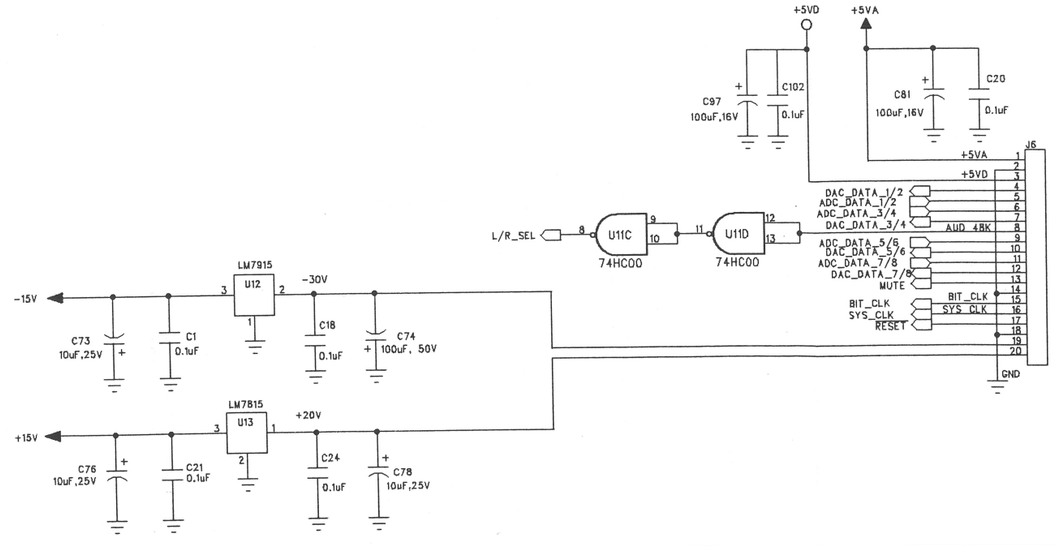
SCALE:

SHEET: 2 OF 2

ADC(CH1-8)

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



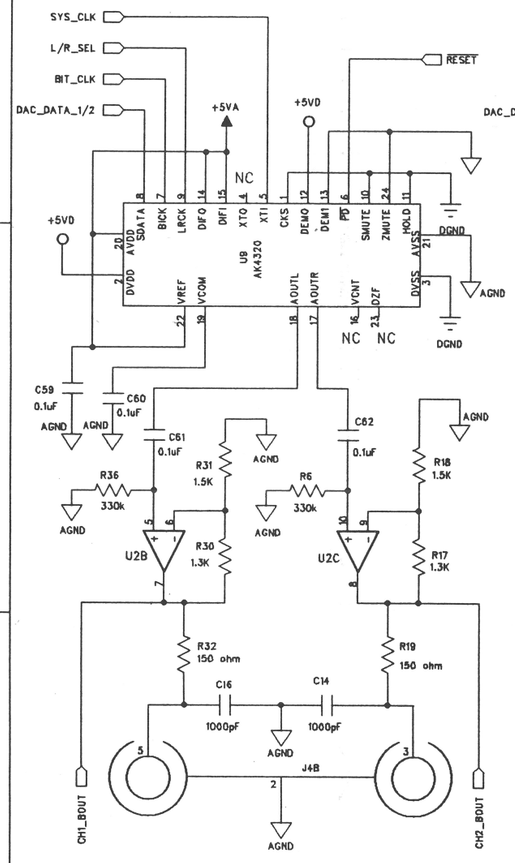


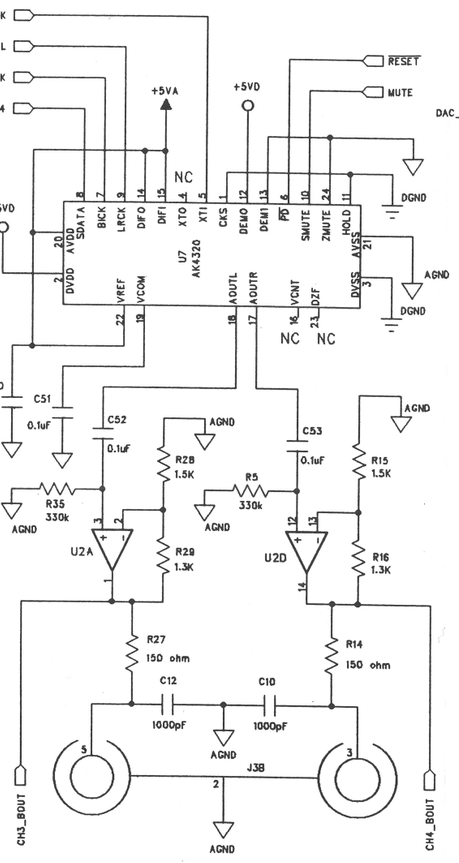
TO MAIN PROCESSOR BOARD

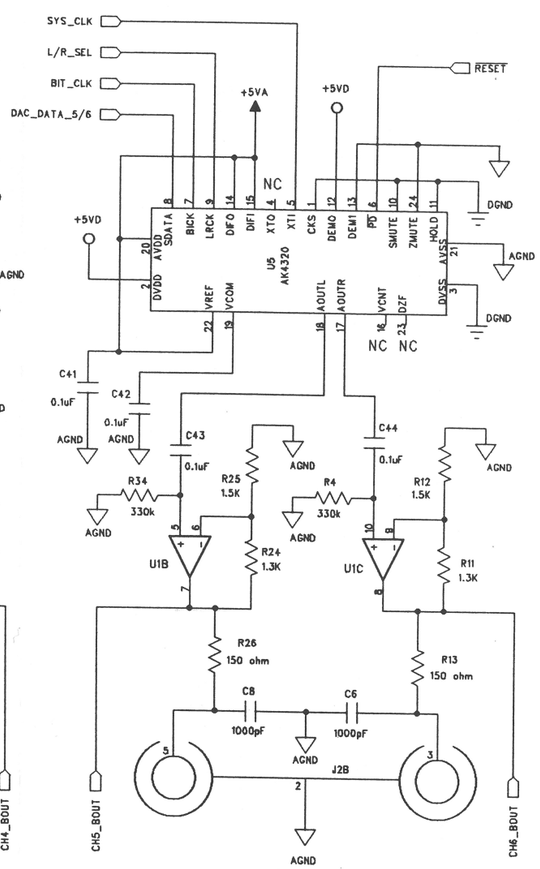
DRAWN: GG	DATED: 3/22/96	COMPANY: ALESIS	
CHECKED:	DATED:	TITLE: ADAT-XT ADA AUDIO BOARD ADCs, +/-15V REGULATORS RESET, MAIN BOARD CONNECTOR	
QUALITY CONTROL:	DATED:	CODE: CDAD	SIZE:
RELEASED:	DATED:	DRAWING NO:	REV: H
		SCALE:	SHEET: 1 OF 2

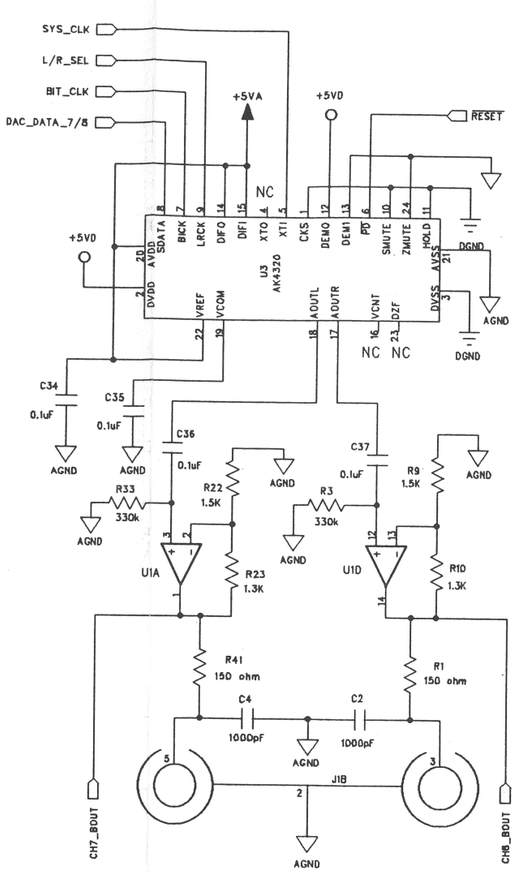
DAC(CH1-8)

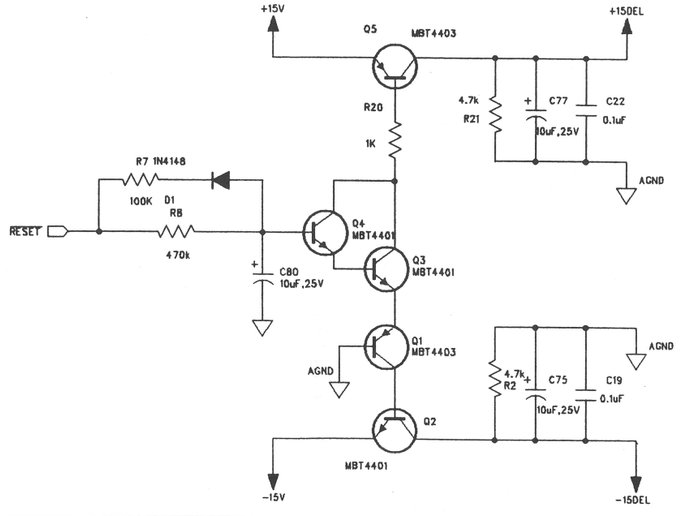
REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

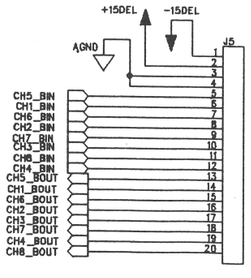






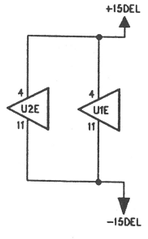




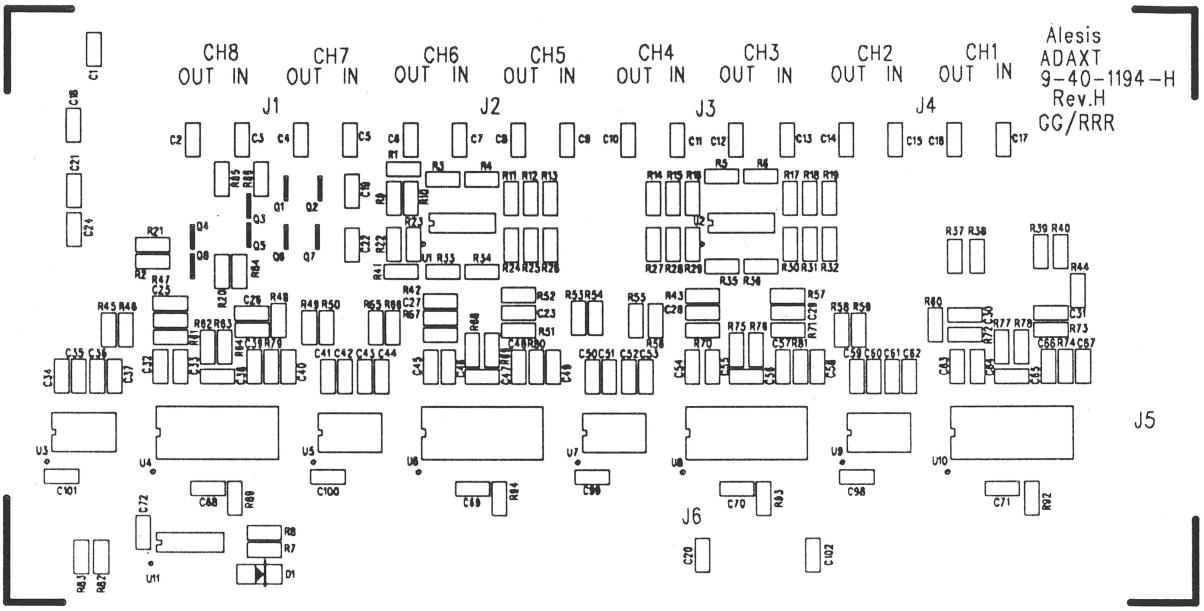


TO ELCO

MULTIPIN BOARD



DRAWN: RRR/GG	DATED: 8/7/95	COMPANY: ALESIS	
CHECKED:	DATED:	TITLE: CDAT I/O ADA DAC, ELCO CONN	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV: C
RELEASED:	DATED:	SCALE:	SHEET: 2 OF 2

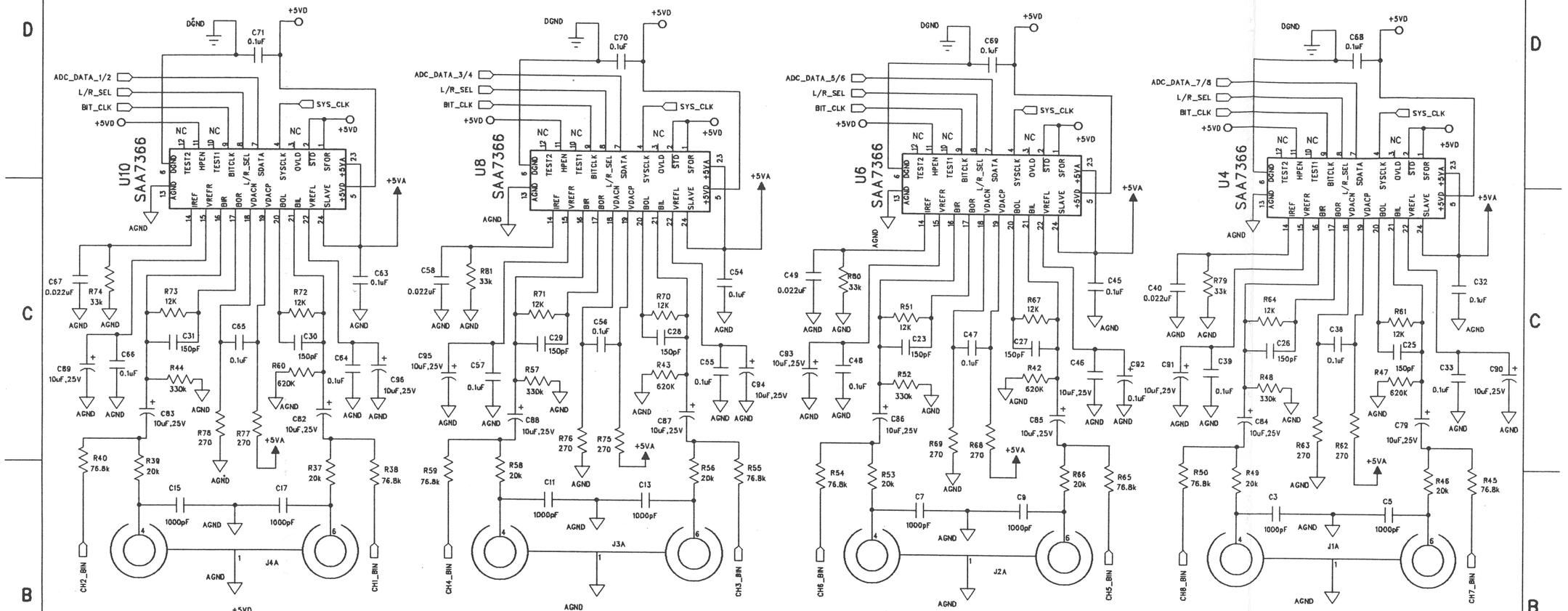


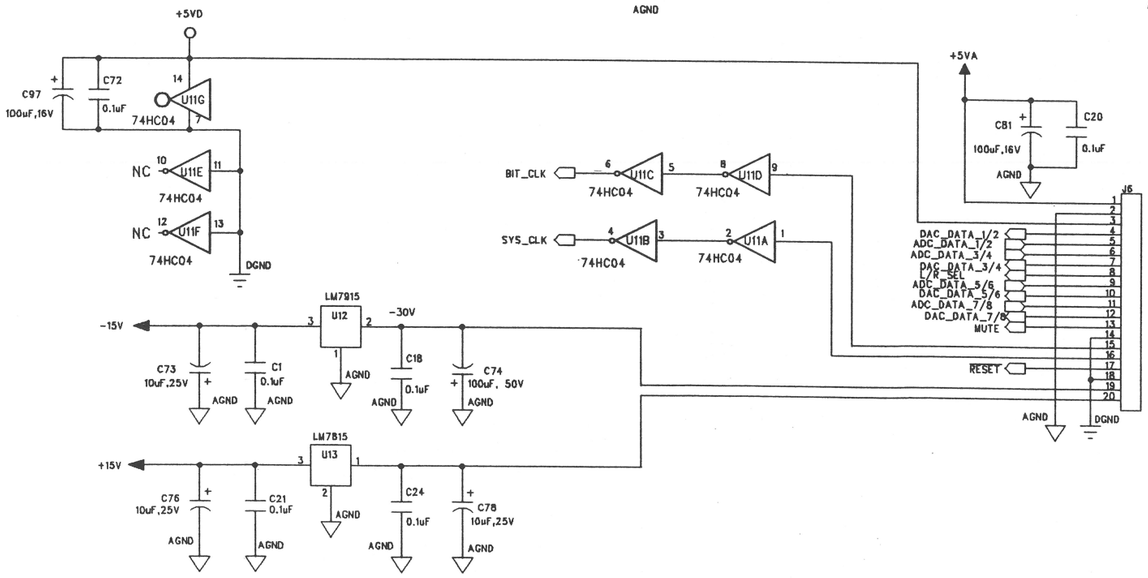
A/W 09-40-1194 REV.H "TOPSILK" LAYER1

A/W 09-40-1194 REV.H "BOTSILK" LAYER4

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:

ADC(CH1-8)





TO MAIN PROCESSOR BOARD

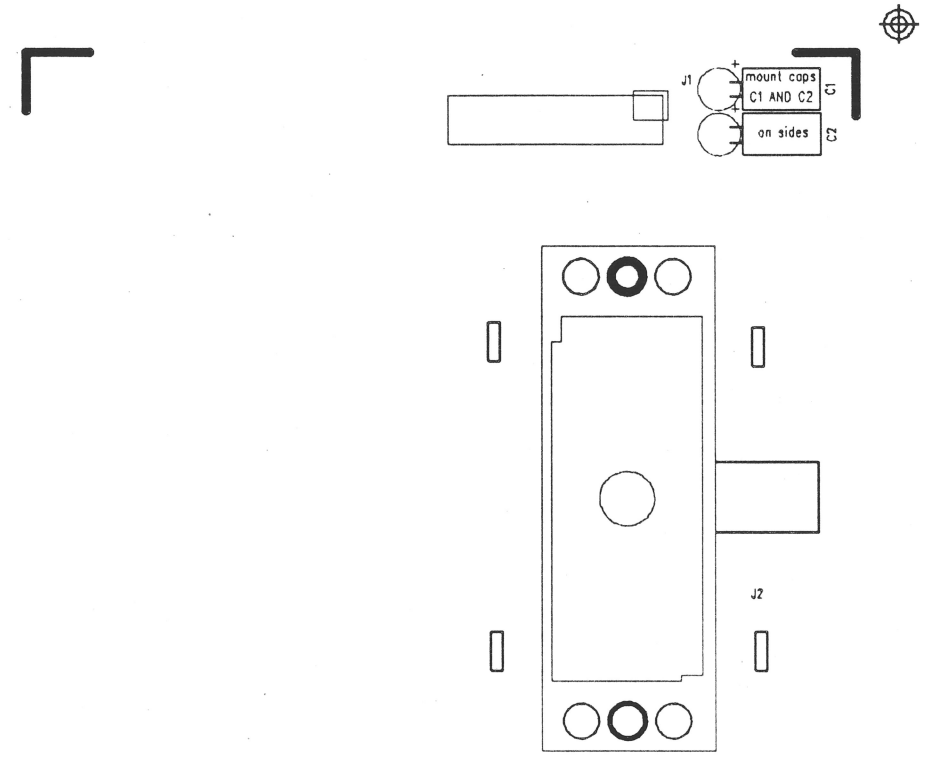
DRAWN: RRR/GG	DATED: 8/7/95	COMPANY: ALESIS	
CHECKED:	DATED:	TITLE: CDAT I/O ADA ADC, POWER CONN	
QUALITY CONTROL:	DATED:	CODE:	SIZE: DRAWING NO: REV: C
RELEASED:	DATED:	SCALE:	SHEET: 1 OF 2

REVISION RECORD			
LTR	ECO NO:	DRAWN BY:	DATE:
X1		RRR	
X2		RRR	
A		RAR	4/95

56 PIN ELCO +4dBu IN/OUT

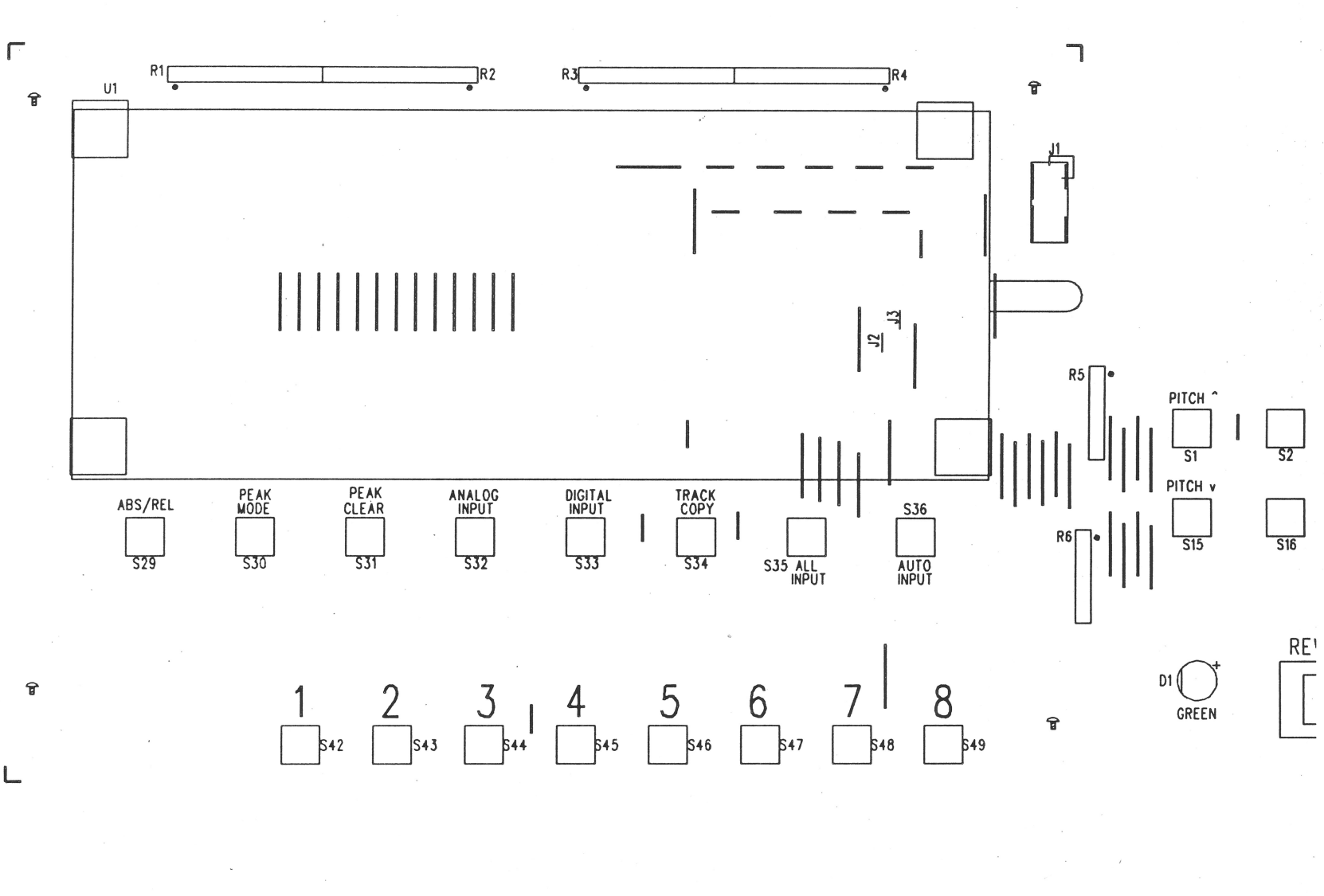
TO ADA PCB

COMPANY:	ALESIS		
TITLE:	CDAT ELCO BOARD		
DRAWN: RRR/RAR/GS	DATED: 8/7/95		
CHECKED:	DATED:		
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:		
CODE:	SIZE:	DRAWING NO:	REV: C
SCALE:	SHEET: OF 1		

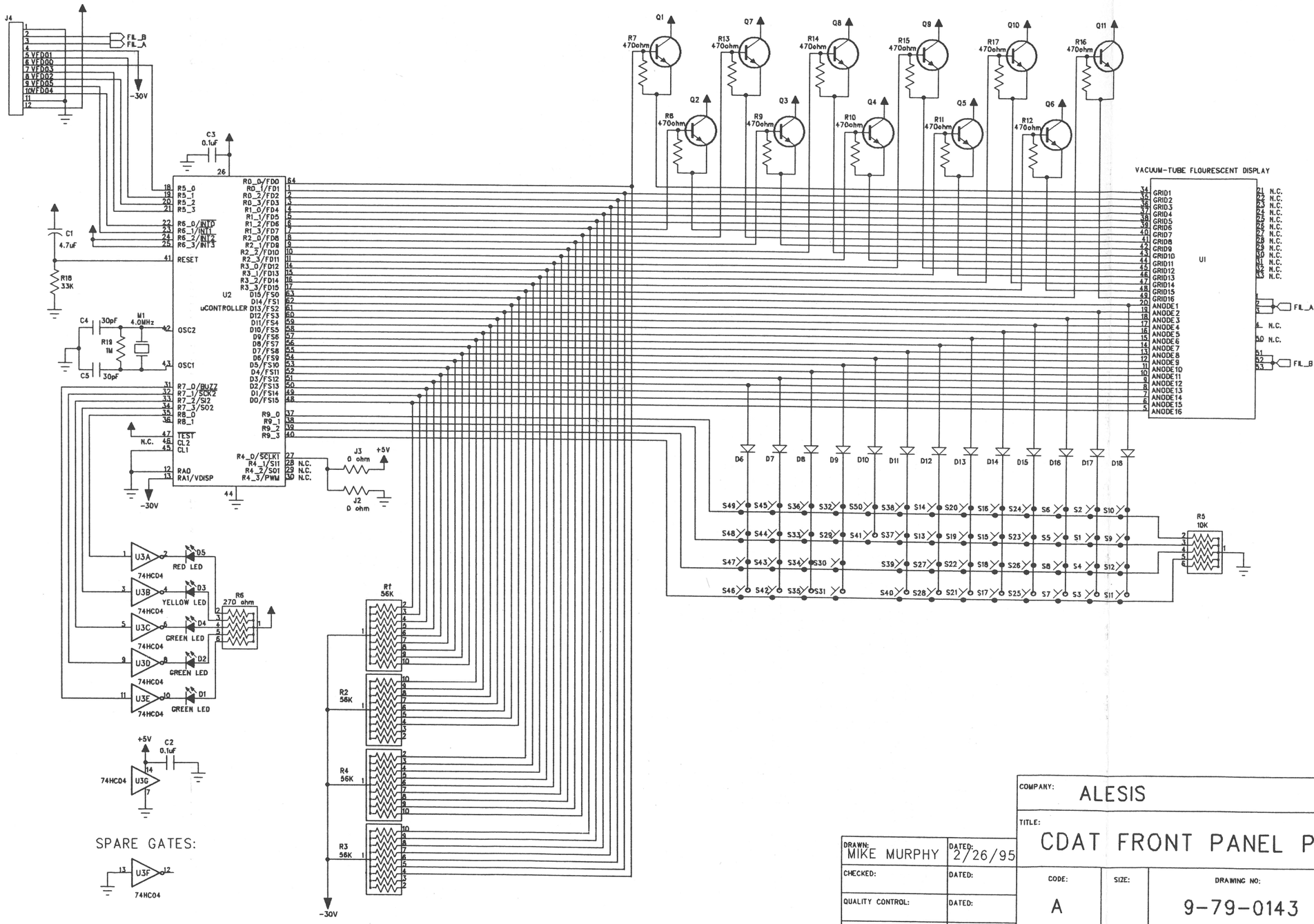


A/W 09-40-1212 "TOPSILK" LAYER1-REV C

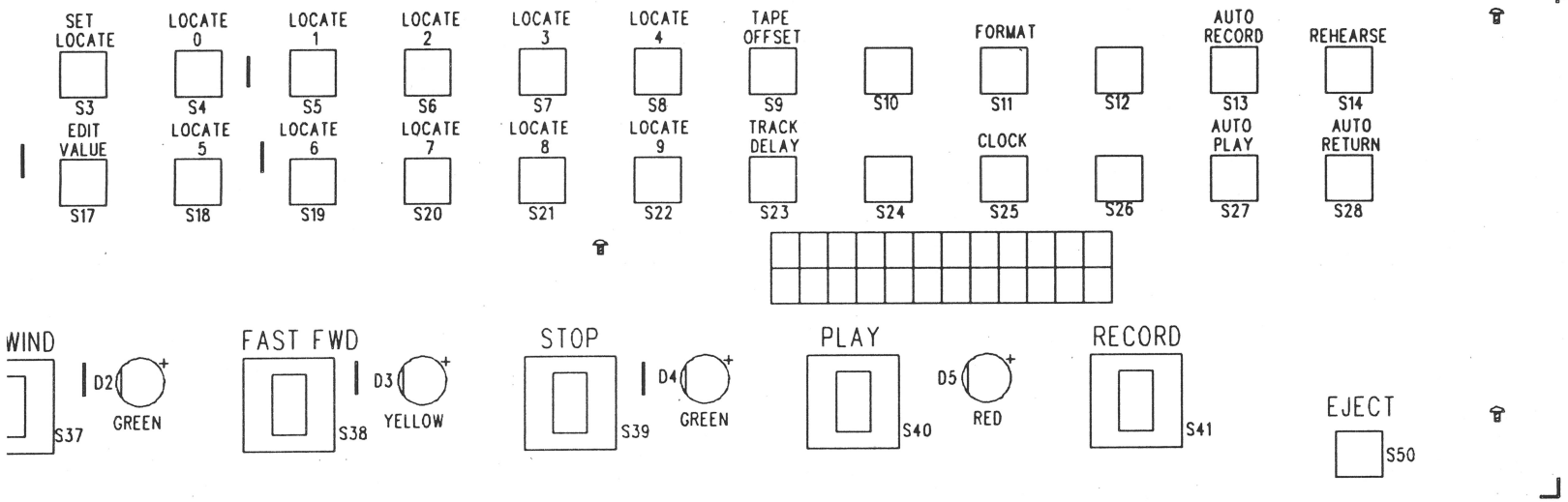
A\W 09-40-1212 "BOTTOMSILK" LAYER2-REV C


R1
R2
R3
R4
U1
J1
J2
J3
R5
R6
PITCH ^
PITCH v
S1
S2
S15
S16
ABS/REL
S29
PEAK MODE
S30
PEAK CLEAR
S31
ANALOG INPUT
S32
DIGITAL INPUT
S33
TRACK COPY
S34
S35 ALL INPUT
S36
AUTO INPUT
1
2
3
4
5
6
7
8
S42
S43
S44
S45
S46
S47
S48
S49
D1
GREEN

REVISION RECORD			
LTR	ECO NO:	APPROVED:	DATE:



COMPANY: ALESIS			
TITLE: CDAT FRONT PANEL PCB			
DRAWN: MIKE MURPHY	DATED: 2/26/95		
CHECKED:	DATED:		
QUALITY CONTROL:	DATED:		
RELEASED:	DATED:		
CODE: A	SIZE:	DRAWING NO: 9-79-0143	REV: A
SCALE:		SHEET: 1 OF 1	



P/N: 9-40-1209 REV. B "TOP SIDE SILKSCREEN"

REVISION RECORD			
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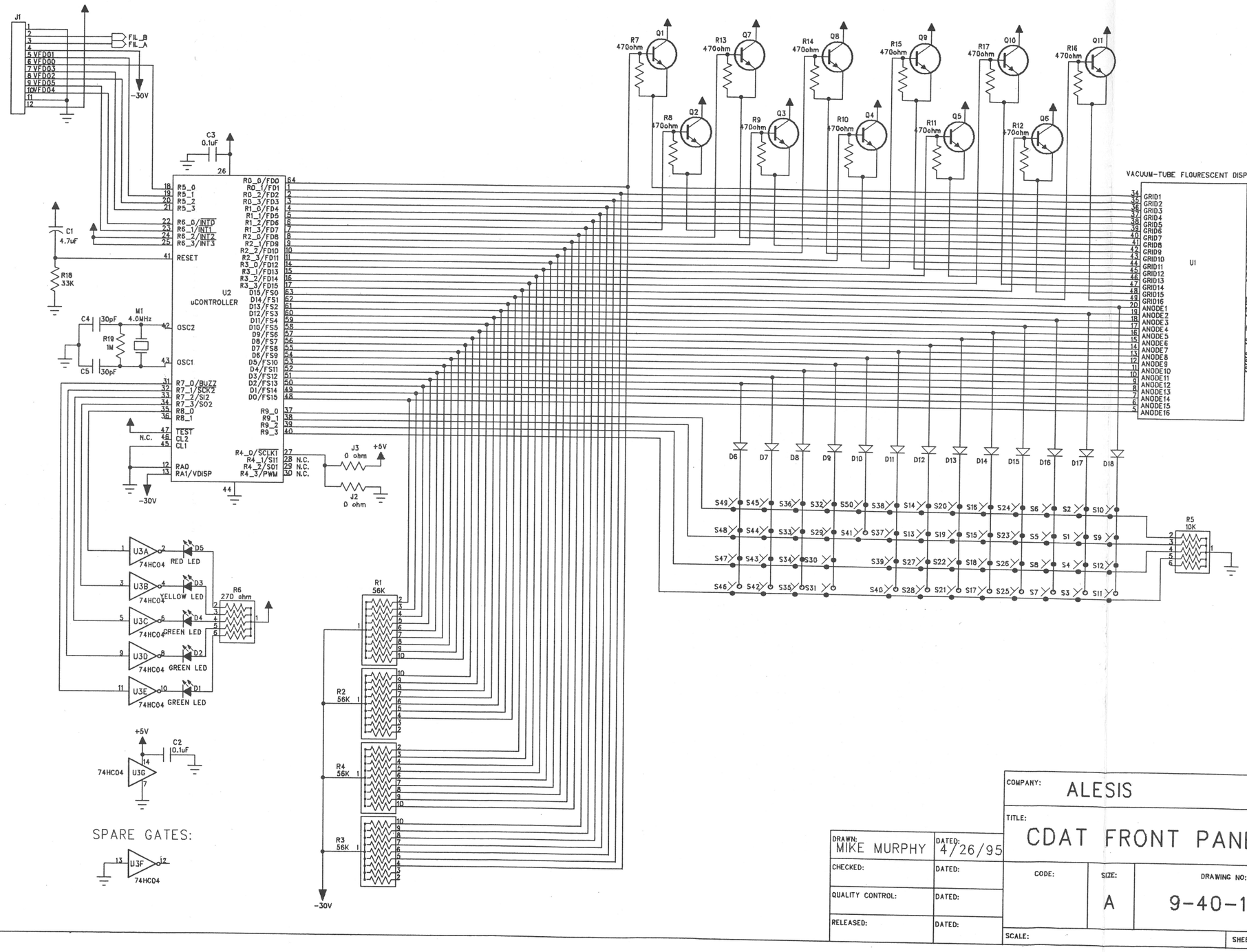
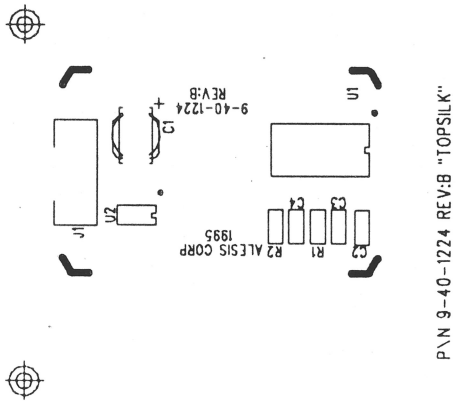
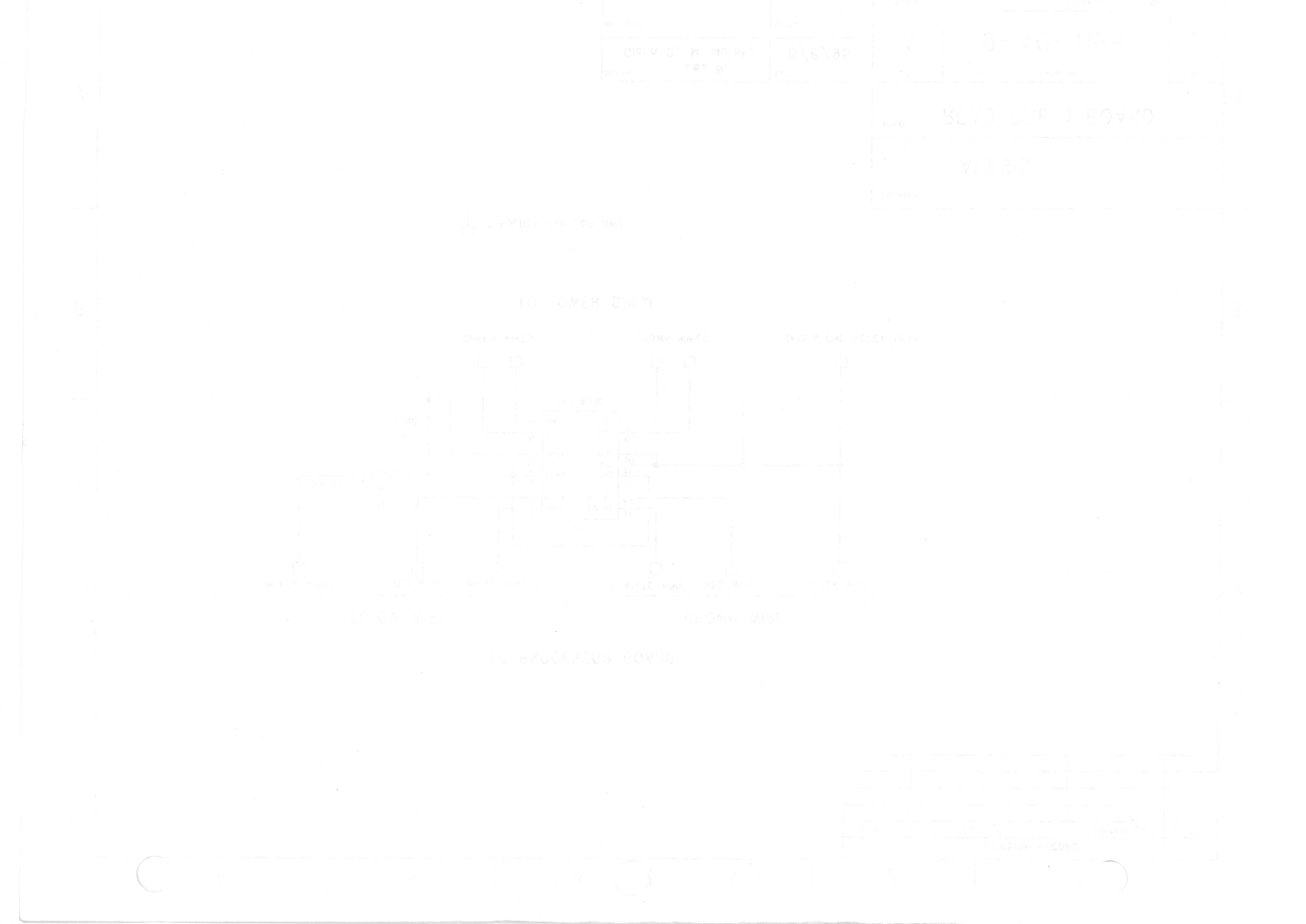


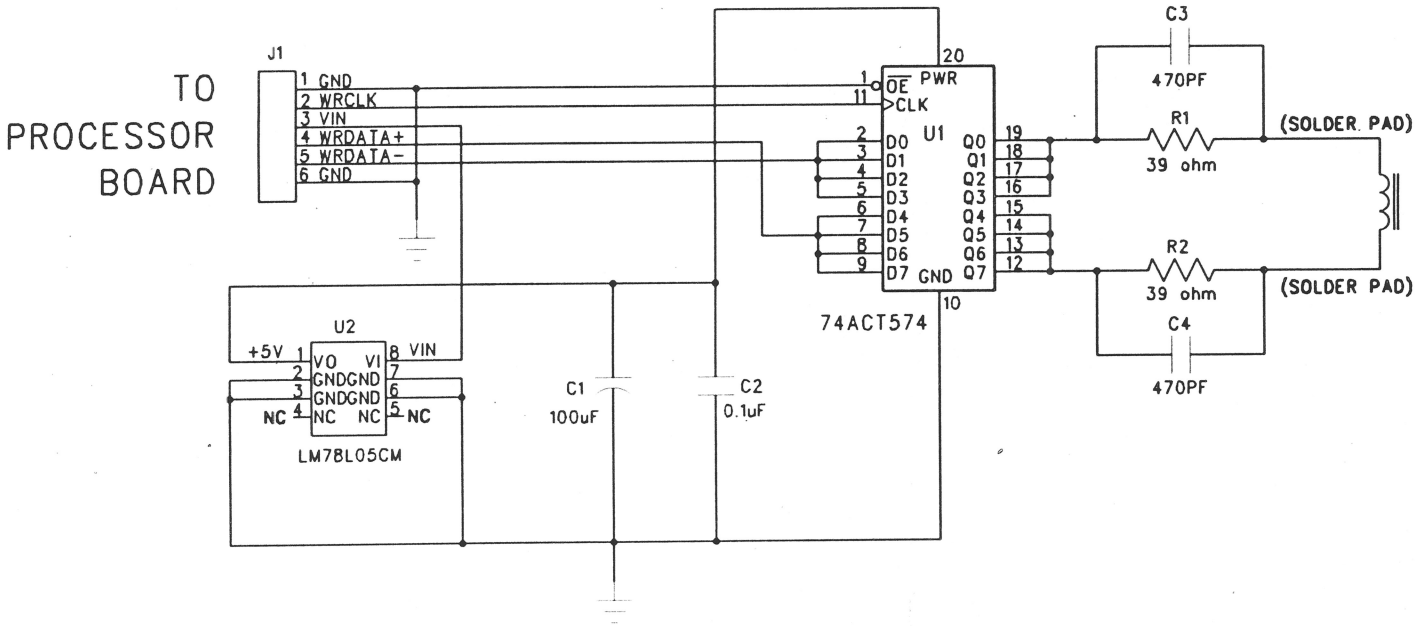
DRAWN: MIKE MURPHY	DATED: 4/26/95	COMPANY: ALESIS	
CHECKED:	DATED:	TITLE: CDAT FRONT PANEL PCB	
QUALITY CONTROL:	DATED:	CODE:	SIZE: A
RELEASED:	DATED:	DRAWING NO: 9-40-1209	REV: B
		SCALE:	SHEET: 1 OF 1

TOPSILK.PHO - Fri Aug 11 17:21:17 1995





REVISION RECORD			
LTR.	ECO NO:	APPROVED:	DATE:



COMPANY: ALESIS		
TITLE: CDAT WRITE BOARD		
DRAWN: LEE N., GLENN G. & M. MURPHY	DATED: 8-11-95	SIZE:
RELEASED:	DATED:	DRAWING NO: 9-40-1224
SCALE:	SHEET: 1 OF 1	REV: B